

REMARKS

Claims remaining in the present patent application are Claims 1-8 and 21-28. The Applicants respectfully request reconsideration of the above captioned patent application in view of the remarks presented herein.

35 USC § 132(a)

The amendment filed 5/23/08 is objected to under 35 USC § 132(a) as allegedly introducing new matter into the disclosure. Applicants traverse.

The rejection appears to misinterpret the amendment. As best understood, the rejection appears to interpret that V_{BBN1} 360 is coupled to V_{BBN2} (370). Applicants respectfully assert there is no disclosure of such a coupling. While both V_{BBN1} 360 and V_{BBN2} (370) are coupled to switch 320, there is no disclosure that they are coupled together. Both are described as “control inputs” to switch 320. For example, signal 360 and/or signal 370 control a function of switch 320. No coupling between the signals is implied or disclosed.

In addition, as best understood, the rejection appears to interpret that the amendment discloses V_{BBN2} (370) as providing a bias to the substrate. Applicants respectfully assert there is no disclosure of such a coupling.

Applicants are confused by this interpretation, as the rejection correctly indicates that V_{BBN2} (370) is coupled to an n-well (315). As the rejection does not appear to set forth its reasoning behind such a conclusion, Applicants reiterate that there is no coupling between V_{BBN2} (370) and the substrate, implied or disclosed.

For these reasons, Applicants respectfully assert that the amendment filed 5/23/08 did not introduce new matter into the disclosure. Accordingly, Applicants respectfully solicit withdrawal of this objection, and entry of the subject amendment.

35 U.S.C. § 112

Claims 1-8 and 21-28 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants respectfully assert that the connections and functions of the recited switch are adequately disclosed. For example, the rejection asks, “which pole is connected to Ground, which to 322 (BBN2), and under what circumstances?”

Applicants respectfully refer to the specification beginning at page 6 line 11 *et seq.*

The switch 320 has a switched terminal 330 coupled to V_{BBP} 380 and a switched terminal 340 coupled to ground. The switch has a fixed output terminal 350 coupled to the substrate 305.

Thus, based on the control inputs, e.g., 321 (360), 322 (370) and/or 380 (330), the switch couples either V_{BBP} 380 OR ground 340 to substrate 350.

The “circumstances” are set forth similarly:

If V_{BBN1} 360 (or V_{BBN2} 370 if present) is high and V_{BBP} 380 is off, the switch 320 electrically couples the substrate 305 to ground.

and

If V_{BBP} 380 is on (e.g., -1.2 volts) and V_{BBN1} 360 (or V_{BBN2} 370 if present) is high, the switch 320 couples the substrate to V_{BBP} 380. For the case when V_{BBP} 380 is on while V_{BBN1} 360 and V_{BBN2} 370 are low, the switch may be built to switch the substrate to either V_{BBP} 380 or to ground, depending upon other design considerations. For all possible bias input combinations, the switch 320 provides a regulated substrate potential that prevents undesirable forward biasing of the substrate/N-well junction.

Thus, the disclosure sets forth the function and operation of the recited switch. Accordingly, Applicants respectfully assert that Claims 1-8 and 21-28 overcome the 35 U.S.C. § 112, second paragraph, rejection, and respectfully solicit withdrawal of this rejection.

35 U.S.C. § 102

Claims 1-8 and 21-28 stand rejected under 35 U.S.C. § 102(b) as being allegedly unpatentable over Rastegar et al. (US 5,422,591, “Rastegar”).

Applicants have carefully reviewed the cited reference and respectfully assert that embodiments of the present invention as recited in Claims 1-8 and 21-28 are patentable over Rastegar.

Applicants respectfully assert that the rejection misunderstands the cited art. In the “Response to Arguments” section, the rejection alleges “action is triggered when A is sufficiently high in comparison with C.” Applicants traverse. In contrast, Rastegar teaches, “[c]ontrol 30 is used for switching the body bias of transistor Q1 between output node 20 and ground. This switching is controlled by input signal N1out” (column 3 lines 61-64). Thus, Rastegar teaches that N1out is the only control of the switch. For example, when A (N1out) is high (digital one), B is connected to C. When A is low (digital zero), D

is connected to C (column 3 line 65 to column 4 line 39. Rastegar fails to teach any comparison between A and C for control of the switch 30, as alleged by the rejection.

Applicants respectfully assert that the cited art fails to support the rejection's allegations of its teachings. Consequently, the relied upon teachings are not present in the cited art. As a result, Applicants respectfully assert that all rejections over the misunderstood reference Rastegar are overcome. Accordingly, Applicants respectfully solicit allowance of Claims 1-8 and 21-28.

With respect to Claims 1 and 21, Applicants respectfully assert that Rastegar fails to teach or suggest the claimed limitations of "a first input for controlling said switch coupled to a first N-well bias supply line" as recited by Claims 1 and 21.

As understood by Applicants, Rastegar teaches only one signal for controlling switch 30, "input signal N1out." "This switching is controlled by input signal N1out" (column 3 lines 61-64). The signal N1out is not taught to be coupled to any n-well. The only teaching is to the gate of Q1, which is not any type of well, and the undescribed input A of switch 30. While there may be n-wells present in Figure 2, Rastegar fails to teach any coupling of a switch control input to any well, much less the recited "n-well."

For this reason, Applicants respectfully assert that Claims 1 and 21 overcome the rejections of record, and respectfully solicit allowance of these Claims.

In addition, Claims 1 and 21 recite the claimed limitation, “wherein said switch is operable to selectively couple said second input to said output terminal responsive to a voltage of said substrate bias supply line.” The rejection proposes that the line attached to node C is analogous to the recited “substrate bias supply line.” Applicants note this line is illustrated as an output (arrow pointing out) in Rastegar Figure 2. The rejection also recognizes this function, describing “output terminal C.” Hence, terminal C is an output terminal, and no control function is ascribed.

Substituting the rejection’s construction, the instant limitation would read, “wherein said switch is operable to selectively couple said second input to said output terminal responsive to a voltage of said (output terminal C).” Rastegar does not teach any control function to terminal C, an output. Thus, the Rastegar switch is not operable to connect anything responsive to “a voltage of said substrate bias supply line” as recited by Claim 1. Consequently, Rastegar fails to teach or suggest at least this claimed limitation.

For this additional reason, Applicants respectfully assert that Claims 1 and 21 overcome the rejections of record, and respectfully solicit allowance of these Claims.

The “Response to Arguments” section appears to indicate that the rejection has ignored the referenced claim language of the preceding argument. Applicants do not argue that Rastegar output terminal C is differentiated from the recited “output terminal.” Rather Applicants argue the additional limitation of switch operation based on “a voltage of said substrate bias supply line.” As previously set forth, Rastegar only teaches switching of a substrate bias supply line. Rastegar fails to teach or suggest doing anything responsive to “a voltage of said substrate bias supply line” as recited.

For this further reason, Applicants respectfully assert that Claims 1 and 21 overcome the rejections of record, and respectfully solicit allowance of these Claims.

In the “Response to Arguments” section, the rejection argues that “the claim language that ‘said switch is operable’ constitutes intended use (functional language).” Applicants respectfully assert that the claimed limitation results in a structural limitation. For example, the cited art structure is incapable of responding to any voltage applied to terminal C. In

contrast, Rastegar teaches that a voltage at terminal C is responsive to other inputs. In other words, Rastegar teaches terminal C as a controlled output, whereas Claim 1 recites “said substrate bias supply line” as a controlling input. Applicants respectfully assert that one of ordinary skill would understand the fundamental difference between a controlling input, as taught, and a controlling input, as recited.

For this still further reason, Applicants respectfully assert that Claims 1 and 21 overcome the rejections of record, and respectfully solicit allowance of these Claims.

Still yet further with respect to Claims 1 and 21, Applicants respectfully assert that Rastegar fails to teach or suggest the claimed limitation of “a second input for controlling said switch,” as recited by Claims 1 and 21. The rejection alleges that terminals A and B teach the recited first and second inputs for controlling said switch. Applicants respectfully traverse. Regardless of whether terminal A or B suggests the first input for controlling said switch, Rastegar fails to teach or suggest a second input for controlling switch 30. Input A is the only taught control input. As taught by Rastegar, either terminal B or D is coupled to terminal C, based only on the voltage at terminal A (column 4, lines 2-39). No other terminal is taught as having a capability to control switch 30. Thus, Rastegar teaches a single control input, and fails to teach or

suggest a second input for controlling said switch, as recited by Claims 1 and 21.

For this still yet further reason, Applicants respectfully assert that Claims 1 and 21 overcome the rejections of record, and respectfully solicit allowance of these Claims.

Applicants respectfully assert that the rejection mischaracterizes the function of switch 30. For example, the rejection alleges that “said switch is capable, in fact: configured, to selectively couple said second input A to said output terminal C....” Applicants do not find such teaching in the cited art. For example, Rastegar teaches, “When reading a high signal at A, control 30 connects node 20 input at B to the well-tie of transistor Q1 through C” (column 4 lines 2-4). Thus, Rastegar teaches a connection between nodes B and C, but no coupling between A and any other node. Further, Rastegar teaches, “A low signal N1out at A causes control 30 to switch the body bias connection of transistor Q1 at C to ground at D” (column 4 lines 20-22). Herein, Rastegar teaches a connection between nodes D and C, but no coupling between A and any other node. Thus, the rejection’s allegation of coupling involving terminal A is not supported by the art.

Further yet still with respect to Claims 1 and 21, Applicants respectfully assert that Rastegar fails to teach or suggest the claimed limitation of “a second input for controlling said switch coupled to a substrate bias supply line,” as recited by Claims 1 and 21. As terminal A is the only line taught by Rastegar to control a switch, and terminal A is not “coupled to a substrate bias supply line,” as recited by Claims 1 and 21, no line or terminal described by Rastegar suggests a single line that both controls the switch and is coupled to a substrate bias supply line, as claimed in this recited limitation.

For this further yet still reason, Applicants respectfully assert that Claims 1 and 21 overcome the rejections of record, and respectfully solicit allowance of these Claims.

Applicants respectfully assert that Claims 2-8 and 22-28 overcome the rejections of record by virtue of their dependence, and respectfully solicit allowance of these Claims.

CONCLUSION

Claims remaining in the present patent application are Claims 1-8 and 21-28. The Applicants respectfully request reconsideration of the above captioned patent application in view of the remarks presented herein.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Please charge any additional fees or apply any credits to our PTO deposit account number: 504160.

Respectfully submitted,

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Date: December 22, 2008

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